US Army Corps of Engineers®

# Engineer Update

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# USACE teams go to Central America

U.S. Army Corps of Engineer (USACE) disaster relief teams are moving into Central America to support the nation's disaster recovery response in countries that sustained damage in the wake of Hurricane Mitch. In partnership with the U.S. Southern Command (SOUTHCOM), USACE teams will provide damage assessment, support for damage assessment operations, emergency contracting, and general engineer support and consultation.

The U.S. is providing relief support to six Central American nations. According to a DoD spokesperson, Honduras and Nicaragua were hardest hit, Guatemala and El Salvador sustained moderate damage from the storm and Costa Rica and Belize had peripheral damage. More than $30 million in funding has been authorized for the DoD efforts.

On Nov. 6, the Secretary of Defense appointed Secretary of the Army Louis Caldera his personal representative to coordinate DoD support of the hurricane relief efforts in Central America. Corps operations are supporting the overall relief mission spearheaded by SOUTHCOM.

The Corps began its mission in three phases. A three-person advance command and control team deployed from Mobile District on Nov. 9 to coordinate logistics and operational requirements. In phase two, Mobile District deployed an 11 person team to Honduras on Nov. 11 to support the damage assessment and humanitarian mission in Tegucigalpa.

Damage assessment teams from Corps' divisions across the nation began deploying Nov. 15 as part of phase three. The first team from the Mississippi Valley Division, headquartered in Vicksburg, Miss., arrived in country on Nov. 19. A second team from Northwestern Division was activated for deployment to support Joint Task Force relief efforts in Guatamala, El Slavadore and Nicaragua. They arrived in country on Nov. 21. Additional teams from

**Hurricane Mitch almost totally devastated Tegucigalpa in Honduras. Teams of people from throughout the Corps of Engineers have deployed to Central America to assist with recovery efforts. (Photo courtesy of Mobile District)**

North Atlantic Division and Great Lakes and Ohio River Division are on alert, ready to deploy within 24 hours notice. Other disaster response teams will be activated as needed.

"This is a Corps-wide effort being spearheaded by the Mobile District," said District Engineer Col. David Norwood. He said the District will tap into engineering specialties from Corps districts throughout the United States to support the mission. "The Corps has other teams prepared to meet any engineering missions it is called on to perform and to respond in

**Continued on page two**

# Conditions improve for soldiers in Bosnia

**Article and Photos**
**By Joan Kibler**
**Transatlantic Programs Center**

U.S. troops committed to the NATO-led Stabilization Force in Bosnia-Herzegovina are seeing a dramatic improvement in their quality of life, thanks in part to the efforts of the Transatlantic Programs Center (TAC).

When troops deployed into the theater in December 1995, little infrastructure remained in the war-ravaged region. Tent camps were quickly set up, using military and contractor resources, with a simple focus of just getting the troops out of the mud. In time, living conditions were improved to Tier III standards, meaning that the military-issue tents had plywood floors and walls, a wooden frame, electrical outlets and lights, and kerosene heaters.

With the continuing U.S. commitment to Operation Joint Forge, living accommodations are being further improved. Today, the focus is on completing temporary construction of life support areas before winter sets in. These large plywood buildings, called seahuts (because they were originally designed for use in Southeast Asia), will have a permanent power source, electric heat, and air conditioning.

Construction is being provided through TAC's contract with Brown and Root Services Corp. of Houston, Texas. Called the Operation Joint Forge sustainment services contract, this contracting instrument, worth about $200 million and awarded in February 1997, provides life support and logistics services in the Balkans region for a two-year period.

**A clean, comfortable dining facility is one quality of life benefit that the Corps has helped provide for soldiers in Bosnia.**

"Upgrading the living conditions serves two purposes," said Robert Gruber, TAC's contracting officer for the sustainment services contract. "This life, safety, and health improvement eliminates two hazards -- the fire hazard caused by kerosene heaters, and the hazard caused by snow loads in the harsh Balkan winters.

"Secondly, this improved housing contributes to the morale of our troops assigned to duty in Bosnia on six-month rotations," Gruber said. "In addition to improved heating, ablution units (showers and toilets) are built into many of the seahuts, depending on the design."

Some 6,900 troops operate in the U.S. sector of Bosnia, called the Multi-

**Continued on page 12**

# Commander extends holiday cheer

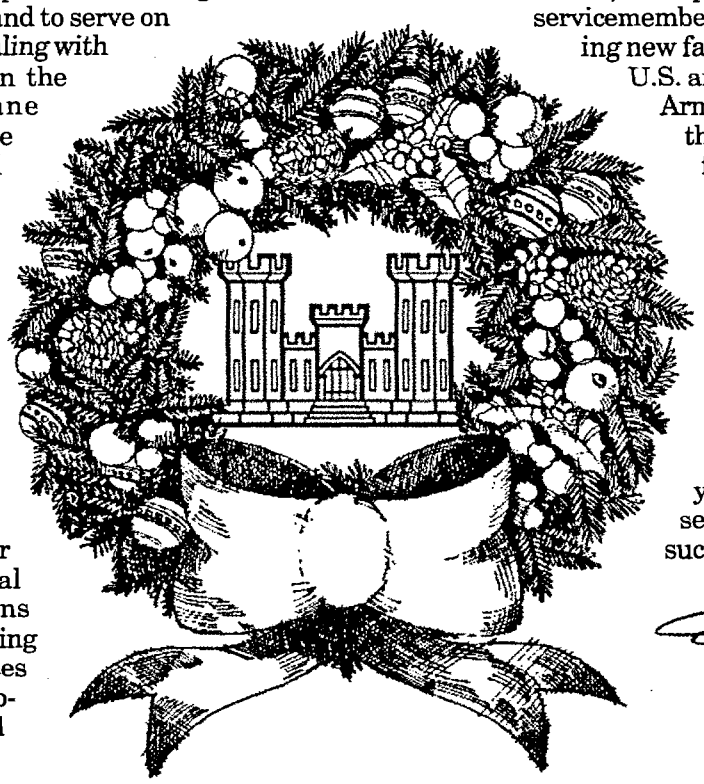
The people of the U.S. Army Corps of Engineers have much to be thankful for during the holiday season -- our health, our nation, our families and friends.

The fact that we are part of a dynamic, forward-looking organization should also be high on our list of things for which to be thankful. Our initiatives in areas like Project Management, Readiness 2000, senior civilian selections, and Divisions as Business Centers, to name just a few, show we are rapidly evolving to meet the challenges of the 21st century.

There are others who have reason to be thankful for the Corps of Engineers. Many people were struck by natural disasters this year, and the Corps was among those who came to their aid. We provided water and ice during Hurricanes Bonnie and Georges and tropical storm Charley. During Hurricane Georges in Puerto Rico we added temporary roofing and emergency electric power to our water and ice missions.

Our people were there to provide ice during the Florida fires, to assist during floods in Korea and the Midwest, to clean up tornado damage at Fort Stewart, Ga., and to serve on the front lines of dealing with El Nino storms. In the wake of Hurricane Mitch, Corps people moved rapidly and efficiently to support the massive relief effort.

Everyone likes to be home for the holidays, but there are Corps people who won't be able to make it. They are supporting soldiers in Bosnia, helping lay the groundwork for destroying chemical and nuclear weapons in Russia, and working in many other places where the Corps supports the Army and other nations.



Whether we are repairing schools in Washington, D.C., taking part in scientific expeditions in the Arctic, helping bring a new recreation reservation service on-line, or improving the quality of life for servicemembers and their families by building new facilities at installations in the U.S. and around the world, the U.S. Army Corps of Engineers remains the top engineer agency of choice for the nation.

I am proud of the way Corps people faced challenges this year while adjusting to sweeping internal changes. I look forward, with excitement and anticipation, to what we will face together in 1999 and in the coming century.

The Corps family wishes you a safe and joyous holiday season, and a happy, healthy, successful New Year.

**JOE N. BALLARD**
**Lieutenant General, USA**
**Commanding**


## Hindrance to advancement?

Reference the article titled "'Corporate assets' given top emphasis" in the November *Engineer Update*. As a GS-12 Supervisory Mechanical Engineer in Operations, I find the new selection policy a distinct hindrance to my career, particularly if I wish to remain in one district, as most of us do for various personal reasons.

Under the alleged "good old boy network," we lower-graded employees had at least some hope of advancement as the higher-graded folks were promoted up the "food chain." Under the new system, not only do the higher-graded folks have to be willing to relocate (which is often a serious burden to their personal life, particularly if they have elderly parents to care for, investments in real property, etc.), but we lower-graded folks often have children in school, financial hardships, or other serious hindrances to relocating for higher paying jobs.

Therefore, I am concerned that some of the "best and brightest" may be forced to decline an offer that might be best for the Corps because it would be bad for them, and the new selection process will degenerate into a system for identifying has-beens and also-rans.

I will complete 36 years of federal service, all with the Corps, on Jan. 1, so I have a fairly good basis for my observations.

**Phillip F. Baumgardner**
**Jacksonville District**

*We referred your letter to Louise Crowell, Chief of Career Management in Human Resources. Her response:*

*"There is no requirement to move for a position. There have been, and probably will continue to be, selections made from among local candidates who have not been geographically mobile. However, the issue is one of competitiveness.*

*"It is important to remember the reason behind 'mobility.' We're talking about career-broadening experiences, enhancing knowlege and abilities through working in multiple organizations and functions — learning how others do business. While this may occur without geographic moves, it may be difficult to gain the right experiences if you are not co-located with other activities. It may mean taking developmental assignments, or otherwise getting involved with activities outside our home station.*

*We must counsel our high-potential members to not limit their vision to getting to the next grade but to consider their long-term career goals — the possibility of moving up the ladder to the senior positions, the GS-14, 15, and SES levels. If we are to truly have 'One Door to the Corps,' the feeder positions demand that incumbents be well-versed in the Corps' business and that they be fully committed to the corporate agenda.*

*"Deciding to uproot a family is never an easy choice, but it is one which most of us have to face if we want to move up in any company. The organization can lay out the expectations and provide the opportunities, but it is up to each of us to make the hard call that we want to move to the top and prepare ourselves accordingly."*

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*(The "Engineer Update" welcomes letters to the editor, commentaries, and editorials on any subject of interest to Corps people. All letters, editorials, and commentaries must be signed so that we can call for clarifications or to check their authenticity.*

*The easiest way to send articles to the "Engineer Update" is via e-mail to bernard.w.tate@usace.army.mil. Or they can be mailed to:*

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# Mitch response

**Continued from front page**

any way it can to help relieve the suffering to the people of Honduras and other areas of Central America," Norwood said.

In addition to SOUTHCOM missions, USACE completed preliminary damage assessments for the United States Agency for International Development (AID). USACE teams assessed damage to transportation infrastructure, public utilities, and social infrastructure, such as schools and hospitals. The countries assessed included El Salvador, Guatemala, Nicaragua and Honduras.

Preliminary findings indicate approximately $8.5 billion in damages to the assessed systems, including $1.7 billion in El Salvador, $2.1 billion in Guatemala, $1.3 billion in Nicaragua, and $3.4 billion in Honduras, which was hit the hardest. These figures are preliminary and subject to revision when more data becomes available.

AID tapped USACE for this work in part because the Corps has worked actively in the four countries since the early 1980s. In addition, USACE has extensive disaster relief experience and has repeatedly demonstrated reliable and swift emergency response, both at home and abroad.

***(Editor's Note:** This article was prepared from Corps and Army reports)*

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# Corps partnership tackles unusual flood

**By Peter Verstegen**
**St. Paul District**

**This photo shows one of dozens of homes along the shore of Creel Bay just outside the city of Devils Lake where homeowners fought the rising lake with backyard dikes. Since this photo was taken in July 1996, the lake has risen another eight feet. (Photo courtesy of St. Paul District)**

A "Road Closed" sign bars traffic from waves that pound over eroding asphalt. Telephone poles and skeletal trees sink beside a road that disappears into the lake. Water, once miles from farms and residences, now surrounds abandoned mailboxes and foundations.

Devils Lake in North Dakota has not been this high in about 150 years. The high water has reinforced a strong partnership between the North Dakota State Water Commission (SWC) and St. Paul District.

"Both the Corps and the commission are water management agencies," said Dave Sprynczynatyk, chief engineer of SWC. "It's important we address projects such as Devils Lake as a partnership. No single agency can do it alone. I believe it's critical that we work together to attain a successful resolution to this devastating problem."

"Five years ago, Devils Lake covered less than 50,000 acres," said Bill Spychalla, project manager for the Devil's Lake flood control project. "Now, it covers about 105,000 acres. With a normal evaporation process, it will take years to get this lake back down to a non-threatening level."

Devils Lake is a closed basin. The only way for water to escape is evaporation. The natural point of overflow to the Sheyenne River is 1,459 feet above sea level, about 15 feet higher than the present lake level.

"This is not your typical flood," said Spychalla. "Unlike a river flood that comes and goes in days or weeks, Devils Lake continues to expand and it won't recede quickly."

The SWC and the Corps are working closely on a three-pronged solution to flooding at Devils Lake.

"The outlet is one prong," said SWC's Todd Sando. "Maintaining infrastructure around Devils Lake, such as the developed areas in the cities, rural water and sewer, and raising critical roads around the lake, is the second."

"And the third, is improving water management in the basin," said SWC's Lee Klapprodt. "This includes providing additional water storage in the upper basin."

A lake level that has risen 22 feet since 1993 motivates the state and federal action. Flooding in the past five years has damaged private and public property, rural water and sewer systems, roads and highways, and created severe economic and social impacts. Officials estimate more than $200 million in damages and federal expenditures.

Besides the Corps and the SWC, other federal, state, and local agencies have been addressing the problems in the basin. Other agencies have paid flood insurance benefits for more than 300 home and business owners, including relocating nearly 100 homes for the Spirit Lake Tribe.

"We coordinate with a Federal Emergency Management Agency task force, which includes federal, state and local agencies," said Spychalla. "The cities and the counties play key roles in making the partnership work to benefit the public."

The Corps' flood control missions focus on two of the three prongs -- the levees and an emergency outlet. As the lake rises, so do the levees that protect the City of Devils Lake, averaging 10 to 12 feet high and now up to 30 feet.

"The most critical item is the levee for the City of Devils Lake due to the imminent threat of significant urban flooding posed by the rising lake level," said Spychalla.

***"This is not your typical flood. Unlike a river flood that comes and goes in days or weeks, Devils Lake continues to expand and it won't recede quickly."***

The Corps designed the levee as a permanent dam to hold back the water. Initially, the Corps raised the city's levee system to 1,445 feet at a cost of $25 million. The levee will now be raised to 1,457 feet. This will protect from a 1,450 foot lake level because the levee is designed to provide seven feet of freeboard to protect against surf whipped up by the prairie wind. Construction to raise the levee to 1,457 feet began in July and will mean spending another $16 million in 1999, but the investment is designed to prevent $150-200 million in damages.

St. Paul District awarded two construction contracts in June 1998 for work on existing levees on the east and west side of the city. Park Construction of Minneapolis got both contracts, and work on both of the stages is continuing around-the-clock.

Park Construction was also low bidder on a related East Ditch pump station contract. The station lifts water from the East Ditch into the lake because the lake is higher than the ditch.

The second prong is the emergency outlet. In June 1997, Congress directed the Corps to design and develop an environmental impact statement (EIS) for an emergency outlet to channel water from Devils Lake to the Sheyenne River. The Devils Lake outlet would drain into the Sheyenne River and eventually into Canada. The EIS examines the impacts on the river and the capacity of the river to handle the water channeled from Devils Lake. The report will evaluate the impact of an emergency outlet, and address technical considerations, the economic viability, and environmental impacts.

The shared priority between the SWC and the Corps is to complete a report to Congress on the outlet. "The design and the EIS are proceeding on schedule on the outlet component," said Spychalla.

If the Devils Lake emergency outlet becomes a reality, its operation would result in stage increases on the Sheyenne River and could possibly affect groundwater levels. In October, the Corps initiated a program to monitor groundwater on the Sheyenne River as part of the outlet study. To evaluate the potential effects on groundwater levels along the Sheyenne River, the Corps released additional flows from its Baldhill Dam flood control reservoir for two weeks in early November.

"Although the flows fall within the existing operating plan parameters for Baldhill Dam, the additional water will simulate what you might expect if you had the Devils Lake outlet in operation," said Spychalla. The Corps normally starts drawing down Lake Ashtabula in October to provide flood control storage for the following spring's snowmelt runoff, but this time the Corps will measure groundwater changes with monitoring wells near Kathryn and Kindred, N.D.

Close coordination and public education are contributing to the success of the three-pronged solution. SWC officials communicate with the Corps each business day by fax, e-mail, and telephone conference calls. State and Corps officials also regularly meet face-to-face to further coordinate project activities.

Spychalla briefed the North Dakota congressional delegation, state and Corps officials during a visit to the project in August. "I presented the magnitude of the flooding problems caused around the lake, the location of the proposed outlet from Devils Lake to the Sheyenne River, and the location of the natural outlet and connection to the Stump Lakes," he said.

"Bill Spychalla and I have been in several forums discussing downstream issues, including a panel discussion in Manitoba," said Sprynczynatyk. "We have participated in public relations efforts to inform and educate the many stakeholders about the outlet and upper basin storage."

# New technology cuts through hard job

**By Ann Marie Reyes**
**New England District**

Innovative rock-cutting technology is helping solve seepage problems at a New England District dam. During floods in 1968, 1987, and 1993, water seeped under the Hodges Village Dam in Oxford, Mass. The district is fixing the problem by building a two-foot thick concrete underground cutoff wall across the main dam and within Dike 1.

"Basically, we're repairing a leaky dam foundation," said Jeff Perchak, project engineer.

The problem is that the dam sits on open gravels and boulders. "As fast as you can pour water into that, the water just disappears," Perchak said. "It is very pervious -- not a good thing when you are trying to impound water."

Imagine a concrete wall built underground and you've got the idea of what a cut-off wall is. It will act like an underground dam to prevent water from seeping through the loose material.

Work on the project began in September 1997 and is about 34 percent complete. The $16.3 million project is expected to take two years. Besides building the cut-off wall, an upstream random fill blanket and a downstream drainage blanket will be installed between Dikes 2 and 3.

The cutoff wall for the dam embankment is about 2,075 feet long and up to 140 feet deep. The cutoff wall for Dike 1 is 1,300 feet long. Both cutoff walls will extend five feet into sound bedrock. The cutoff wall for the dam will have 137 panels. The cutoff wall for Dike 1 will have 83 panels.

Bauer of America is the contractor. The company is using a new type of equipment to cut through the bedrock. The Bauer Slurry Trench Cutter continuously loosens and reduces the size of the soil material and mixes it with a bentonite (a type of clay) suspension. "The bentonite is brought to the trench to support the excavation so the walls don't collapse," said Perchak.

Cutter wheels specially designed for breaking up rock are mounted to two hydraulic drive wheels that are attached to the base of the machine's frame. The cutters are pulled up from the ground periodically and checked to see if any "teeth" need to be replaced. The trench cutter can be used in both hard and soft ground, and it is mounted on a Sennebogen 100-ton base crawler crane. Two cutters and a hydraulic clamshell excavator are being used for the project.

"Bauer has developed a technology that no one else has," said Perchak. "Everyone else would use conventional clamshells or hydraulic clamshells for the soft ground, and drop chisels or hammers down the hole for the hard ground excavation."

Besides the trench-cutters, a 12-ton drop chisel, operated with a Sennebogen 70-ton crane, is being used to excavate through the bedrock.

According to Perchak, district officials chose Bauer for the project because they felt trench stability would be better and working conditions would be safer using this type of trench cutter.

To give the contractor working room, the top 10 feet of Hodges Village Dam was temporarily removed. Other major work includes building bituminous concrete pavement, underground electrical and telephone lines, duct banks and manholes, building access and haul roads and staging areas, installing a temporary pedestrian access way to the gate house, and removing the upstream slope protection of Dike 1 to create a work bench. In addition, the contractor will remove existing overhead electrical and telephone service, replace an existing cable log boom, and restore and clean up the site after completion.

**A new rock-cutting technology is being used to repair a leaking dam. (Photo courtesy of New England District)**

# *Telescoping weir demonstrates ingenuity*

**By Nancy Allen**
**Norfolk District**

The ingenuity and innovation of three U.S. Army Corps of Engineers employees has resulted in a new type of weir that is already working at Craney Island, Va.

Thomas "T.D." Woodward, chief of the Surveying Section in Norfolk District's Engineering Division; Ronald G. Vann, chief of Waterways and Ports Branch in the district's Engineering Division; and Jack Fowler, a retired employee of the Waterways Experiment Station (WES) in Vicksburg, Miss., are applying for a patent for their telescoping weir.

"A similar concept is used aboard hopper dredges, but not on land," said Fowler. "This application was totally original," said Woodward.

A weir is a small dam across a stream that controls the flow of water out of one area into another. The Craney Island Dredged Material Area, a 2,500-acre manmade peninsula in Norfolk Harbor near Portsmouth, Va., contains material dredged from Hampton Roads channels. The area is divided into three cells; one cell is always being pumped into while the other two are drying out. The weirs on Craney separate the dredged material settling to the bottom from the clear water on the surface, and allow the clear water to flow back into the harbor.

The prototype telescoping weir can be raised and lowered to adjust for greater or lesser amounts of dredged material being pumped into Craney.

"[The telescoping weir] has so far been an outstanding asset to our operation," said William Rawls, chief of the Craney Island project.

"We had to work very closely with the users and customers," said Vann. "This was not just *talking* about a team; this was people working together."

## Idea

The idea for the telescoping weir had been floating around since the 1970s. In the mid-1980s the team began putting these ideas on paper. The weirs used at that time were hard to manage, and the team had an idea for a telescoping weir.

"I realized, during a long period of time, what we had could be improved," said Vann. "Jack is a geotechnical expert who has worked on other innovative projects at Craney. T.D., who has a background in civil engineering, is very mechanical minded. None of us were afraid to tackle something new."

The idea fell astray for a number of years due to a lack of funding. However, in 1991 they started revisiting the idea with drawings and Fowler built the prototype model at the WES.

"One thing that was important was not just coming up with the idea, but making it work in a real environment," said Vann.

Oceaneering, a research and development firm from Maryland, built the prototype weir installed in the central cell at Craney Island in 1996. That same year, Craney beat all records for the amount of dredged material pumped.

"A lot of folks never dreamed it would work," said Woodward. "We ran into all kinds of obstacles and critics."

The telescoping weirs can adjust for any depth from the surface down to 15 feet. It weighs about 15,000 pounds. Solar panels and a 24-volt electric system power the small motor that raises and lowers the weir lip. The telescoping weirs at Craney have an estimated service life of about 15 years.

A telescoping weir is easier to operate and requires less manpower, results in better water quality, and is safer to operate. Another advantage of the telescoping weir is that it is remote controlled and several weirs can be operated from one site.

## Improvement

"This is a 100 percent improvement over standard weirs," said Rawls. "With standard weirs, someone has to manually add or remove as many as 14 timbers to have the same results as the push button or remote control does. It's an instant reaction that gives us better water control in the cells."

Recently, a second telescoping weir was installed in the south cell. Plans are to have one in the north cell by early fall. Each cell also has two traditional weirs.

The process to get a patent for the telescoping weir is lengthy. When it comes through, the U.S. government will hold the patent and Woodward, Vann and Fowler will be considered the inventors. The royalties will be split among all the partners.

## Potential

There are plans to put the weirs on smaller projects and, once the patent is granted, to produce the weirs for use by other districts and private firms.

"They could be used at sewage treatment plants and many types of lagoons -- drinking water, paper mill, fly ash, hog and chicken farms," said Fowler.

"We're just beginning to look at the possibilities," said Vann. "There has been lots of interest. It is a service our district could provide to others."

But the innovation of these three men will not end there. "We still want to improve it," said Woodward. "It will accommodate future advancements such as sensors that will allow automated or remote operation," said Vann.

# A Vital Part of the Army

# Corps still works in Kuwait

**By Denise Tatu**
**Transatlantic Programs Center**

**The Corps provides increased installation support services at Camp Doha, an industrial warehouse complex used by the U.S. military in Kuwait. (Photo courtesy of Transatlantic Programs Center)**

In an environment where change is the only constant and timing is everything, Transatlantic Programs Center's (TAC) installation support team in Kuwait has taken on a Herculean task. "The challenge for the engineer team is to provide the installation commander the right engineering services, at the right time and at the right price," said Col. Robert Slockbower, Gulf Regional Engineer.

Installation support covers a broad range. The work may involve maintenance and repair projects, minor construction, utility and infrastructure upgrades, and base operations. Most installation support projects are small, less than $1 million, but critical to Army Directors of Public Works (DPWs) and Air Force Base Civil Engineers (BCEs).

"Our greatest challenge is to provide these services in an environment where the operational requirements change rapidly and require immediate response," Slockbower said. "At the same time, we must continue to develop longer-term facility capabilities. This requires close cooperation and integration of all the engineering service providers in theater including the BCE and the DPW, engineer troop units, Transatlantic Programs Center, host nation agencies such as the Military Engineering Projects (Government of Kuwait), and contractors."

TAC's work in the Middle East is performed at bases provided by the host nation, and at the host nation's invitation. To date, TAC's emerging installation support program has primarily included work at Camp Doha, and Ali Al Salem and Ahmed Al Jaber air bases in Kuwait. Camp Doha is a warehouse complex north of Kuwait City which has been a major U.S. base since the Gulf War. The two air bases are Kuwait air force installations with part of each designated for operations by the U.S. Air Force and its allies.

## On-site contracting

The TAC team has improved responsiveness by placing a contracting officer, Martha Sloan, at the installation support office in Kuwait.

"Having a contracting office on site has significantly increased our ability to rapidly respond to the needs of our customers and contractors," said Slockbower. "Our on-site contracting officer has first-hand knowledge of the requirements and concerns of both the customer and contractor. This provides the contracting officer the ability to rapidly respond to situations that might otherwise result in either cost or time growth in the execution of projects."

"Everyone works together to respond to our customers," said Sloan. "In fact, satisfying our customers is our number one priority. Being on site allows me to better understand their needs, provide immediate input and feedback and, as a result, provide a quick turnaround."

The Contracting Directorate and Office of Counsel at TAC headquarters in Winchester, Va., supports Sloan. According to Ron Breen, chief of Contracting Division, having the Standard Army Automated Contracting System (SAACONS) in both Kuwait and Winchester helps expedite contracting.

"Having SAACONS in both locations provides for expedited review and coordination between Martha and her counterparts in Winchester," said Breen. "We also assist her with all CEFMS actions."

## Job Order Contracting

A Job Order Contract (JOC) awarded in May to Kuwait Dynamics Ltd. is another tool used successfully on a number of projects. JOC contracts use a unit-price book (UPB) that establishes a unit price for many construction line items. A typical UPB has more than 50,000 line items and covers almost every construction task. Items that are not in the UPB can be negotiated, priced, and added at any time. The contract's price is put in terms of a coefficient, which is a multiplier that covers the contractor's overhead and profit, and any adjustment between the UPB and actual local prices.

To date, eight task orders have been issued through the JOC contract in Kuwait, and TAC has also developed a cost estimate for a JOC contract in Saudi Arabia.

Projects for the Army have included repairs to curbs, office expansion, and chapel renovations at Camp Doha. For the Air Force, JOC has been used for improvements to a dining facility and facilities to house communications equipment at Ahmed Al Jaber. In addition, funds have been received to design several task orders for projects at both air bases in fiscal year 1999.

"We've used the JOC to make some dining facility modifications, and we've cooperated on an aircraft sunshade purchase which should help us reduce the total project cost at Camp Doha and Ahmed Al Jaber," said Maj. Karl Bosworth, the BCE at Ahmed Al Jaber air base. "We've seen the benefits of using JOC in timeliness and quality. We were able to obligate almost $1 million in year-end funds as a result of having JOC in place. We believe we'll be able to better control problems that we had previously experienced with some quality control issues."

Capt. Marj Wimmer of the 9th Air Expeditionary Group (9AEG) at Ali Al Salem air base, said the JOC contract will be invaluable in the Air Force's phased construction plan.

"Currently, personnel are living and working out of tents, expandable shelters, and general purpose shelters," Wimmer said. "We plan to use the JOC contract to quickly design and build several basic-needs facilities such as a dining facility, cold storage, and a telephone switch facility. The quick response of the JOC contractor will allow them to be in place in minimum time."

"The current dining facility is a kitchen tent that has outlived its useful life," said Capt. Pat Scholle, also of the 9AEG. "The new facility will provide a healthier and more relaxing dining experience. Customers are looking forward to better climate and pest control as well. A new cold storage facility should also eliminate the cost of leasing refrigerator trucks. These projects are being designed and will be contracted for completion by the Corps."

## Long-term plans

TAC has also assisted the Air Force in developing a three-year plan to transition the American compound at Ali Al Salem to a full-fledged air base capable of providing force protection, operational, and quality of life requirements to U.S. forces.

"We couldn't have accomplished this without the Corps of Engineers," said Wimmer. "The Corps provided insight to all aspects of the construction process such as planning, programming, design, contracting, and inspection. They also provided the policies and regulations required to navigate through the authorization and construction process, and training for specific needs and projects tailored to this site."

Lt. Col. Karen Kaylor, also of the 9th AEG, agreed.

"The Corps is an integral part of the team to convert the American compound into a more stable, permanent base," Kaylor said. "Their designs for a modern, more effective entry control point will greatly enhance force protection. Designs for dining and cold storage facilities will have a positive impact on quality of life. Working with the Corps through the planning and design, followed by effective contracting of these facilities, promises to be instrumental in the transition of this base in a timely manner."

Bosworth also sees the Corps playing a key role in the future of Ahmed Al Jaber.

"Due to our limited engineering technical design capability, we must depend on the Corps," he said. "The Camp Doha office has been indispensable during the past year and we expect that support to increase significantly during the next year as we take an aggressive step toward building temporary structures to replace the expedient structures built during the past five years."

# Employees get anthrax vaccination

**By Gloria Stanley**
**Far East District**

On Oct. 8, emergency essential civilian (EEC) employees of Far East District (FED) began receiving a series of anthrax vaccinations. It is part of the Department of Defense (DoD) force protection program and consists of a series of six inoculations during an 18-month period.

Anthrax is a deadly animal disease. Because it can infect humans, it can be used as a biological warfare weapon. DoD believes that anthrax delivered by an airborne weapons system is the most likely method by which an enemy would try to infect U.S. forces.

To protect our forces, DoD has approved and is implementing an anthrax vaccination program. It began in Korea on Sept. 9, and is being administered to all active and reserve military personnel, and EEC employees, beginning with forces in potential high biological warfare threat areas in Southwest and Northeast Asia.

*A Vital Part of the Army*

While no country is known to have used anthrax as a weapon, several countries, including North Korea, are believed to have anthrax in their arsenals.

There were varying opinions among the emergency essential civilians after they received their first shot.

"Doesn't bother me a bit," said Larry Grant, Programs and Project Management Division.

The most common side-effect recipients experience is arm soreness.

"After the shot I felt a stinging, burning sensation for a few minutes," said Charlotte Stockwell, Chief of the Resource Management Office, after her first shot. "I don't have any problem taking the shots. There are certain requirements that go along with accepting an EEC position. This is just one of them."

Two weeks later, on Oct. 22, it was time for the second shot in the series.

"The second one was easier," said Stockwell. "To me, it didn't hurt as much, although several people told me they felt a stronger burning sensation with the second shot. I support the program. I think it's needed in case something does happen. It's good to have this in place and we are protecting our military and EEC employees."

FED people got their third shot in early November, to be followed by boosters at six months, 12 months, and 18 months. Annual booster shots are recommended to maintain protection.

Anthrax usually afflicts grazing animals. In an airborne form, the most conceivable method of weaponized delivery, it can attack the human respiratory system and other organs. It can cause death within a week in about 99 percent of the cases, according to Lt. Col. Brian H. Feighner, Preventive Medicine Consultant at 18th Medical Command.

People can be infected through the skin by handling or eating contaminated meat, or by breathing germs occurring naturally or delivered by weapons.

The vaccine, fully licensed by the Food and Drug Administration, has been in use since 1970 and exhibits few side-effects.


**Far East District military personnel take weapons training at the indoor shooting range at Yongsan Garrison in Korea as part of troop call. (Photo courtesy of Far East District)**

# In Korea, readiness is key

**By Gloria Stanley**
**Far East District**

At its most recent troop call, the Far East District (FED) reinforced its military preparedness with qualifications training on new weapons and protective gear. Most people who are not on the Korean Peninsula don't realize that FED has a wartime mission, because the Korean War ended with an armistice, not with a peace accord. Korea is one of the flashpoints where war is still considered likely to start.

"The Far East District is probably the only Corps' district whose military personnel are assigned weapons," said Lt. Col. Mark J. Cain, FED's Deputy Commander.

The district's 13 active duty military personnel trained with the new M-9 9mm pistols and the new M-40 protective masks, which have bigger filters and provide more protection than the older M-17 masks. Target practice with protective gear was part of the afternoon's training at the indoor range at Yongsan Garrison in Seoul.

The masks are part of the new nuclear, biological, and chemical protective gear being issued to the military and emergency essential civilian personnel in FED. As part of the Department of Defense's force protection effort, these team members are also receiving the anthrax vaccination series *(see article at left)*.

To sharpen their skill at supporting the army, active duty military and emergency essential civilian FED team members also actively participate in military exercises such as Reception, Staging, Onward Movement & Integration and Ulchi Focus Lens throughout the year *(see article below)*.

# *District trains in exercise*

**By Gloria Stanley**
**Far East District**

Far East District (FED) and its Individual Mobilization Augmentees (IMAs) recently took part in Reception, Staging, Onward Movement and Integration (RSO&I), a major exercise to test U.S. Forces Korea's (USFK) ability to receive personnel and equipment and integrate them into the theater force structure.

As troops arrive, they go to assembly points, draw equipment, move to staging areas, and finally move to their tactical assembly areas. At this point, the units are ready to go into battle.

Support units like FED develop the support network for this process. Construction materials, equipment, supplies, and life support infrastructure must be in place when the first units arrive.

FED's role is to provide engineering services, contracting support, construction management, real estate services, and LOGCAP support.

As part of FED's improvement and training, the district held a command post exercise (CPX) which examined alert procedures, status reporting, and transition to war procedures. After the CPX, the staff deployed to their battle positions across Korea.

The FED Operations Center (FEDOC) staff includes active duty military, IMAs, and essential civilians.

"In three years, the number of IMAs has grown to 13," said Lt. Col. Dale Knieriemen, FED's former Deputy Commander, and exercise controller.

Last year the FEDOC staff worked out of a five-ton van, and 20 people had to crowd in for briefings. This year, they had two stationary trailers, the van, and more communication equipment such as laptop computers and satellite telephones.

"It's like night and day," said Maj. Debbie Mallgren, an IMA personnel specialist. "There is a lot of computer support and we don't have to prepare handwritten briefing slides." Among other things, Mallgren is responsible for the IMA inprocessing/outprocessing, awards, and protocol coordination.

"For the first time, we developed a coherent district team focused on supporting the defense of the peninsula," said Tom Brady, Emergency Management Officer, Pacific Ocean Division. "FED has one of the primary engineering efforts during a contingency. Without planning, it would directly impact our ability to bring troops on the peninsula and provide bed-down and force protection."

Two Contingency Real Estate Support Teams (CREST) also deployed in this exercise.

"We are continuing to improve the process of funding potential sites and work with the Korean government in getting access and use of the land," said Lon Larsen, a CREST member. They completed seven land agreements while in Korea.

"During the past few years, we have demonstrated to USFK and the services that FED has a valid mission under OPLAN 5027," said Lt. Col. Christopher Prinslow, FEDOC Executive Officer and an IMA.

"The IMAs have provided continuity by their participation in several exercises and I can't think of any better training for them than what they get here," said Col. James Carney, FED Liaison Officer in Charge and a USACE IMA.

"We have accomplished a lot during the last three years," said Knieriemen. "This battle staff is an outstanding organization. We have gone from two to 40 people, including civilians and military, and we are now better prepared for war."

# Japan construction saves U.S. money

**By Maureen Ramsey**
**Japan Engineer District**

Invest your money for a high rate of return, financial wizards advise. And a high rate of return, about 50 to one, is what happens every time Congress invests military construction (MILCON) planning and design funds in the Japan Facilities Improvement Program (JFIP).

In a voluntary initiative to share the burden of stationing U.S. forces in Japan, the Government of Japan (GoJ) began JFIP in 1979. Through the program, Japan builds $50 to $60 worth (depending on the exchange rate) of facilities for U.S. forces for every dollar the U.S. spends. The program value now amounts to about one billion dollars a year. To reap this benefit, the U.S. appropriates $16-18 million annually to articulate requirements and to oversee design and construction.

"What's really unique about JFIP is that it isn't bound by any formal agreement or treaty like host nation programs in Korea and Europe which mandate how much each government will pay," said Andrew Constantaras, Japan Engineer District's (JED) Deputy for Programs and Project Management. "The Government of Japan voluntarily initiated the program, and it determines the funding levels. Everything is negotiated, from each project incorporated into the program, to the kind and amount of equipment the GoJ provides in various types of facilities."

## A Vital Part of the Army

In the past two decades, the GoJ has contributed more than $13 billion toward quality of life and operational facilities in Japan. These facilities can be found throughout the country. Facilities built to date include 9,677 family housing units, 20,725 rooms for enlisted service members and officers, 113 headquarters and operations buildings, 28 medical and dental clinics, 58 schools and child care centers, 80 aircraft shelters and hangars, 129 warehouses, 106 maintenance shops, and storage tanks that hold an estimated 170 million barrels of fuel.

As the Department of Defense executive agent, JED oversees the program for all Army, Navy, Marine Corps, and Air Force bases in Japan. Representatives from JED, U.S. Forces Japan (USFJ) and the GoJ's Defense Facilities Administration Agency work closely to identify, design, and build JFIP projects.

Personal relationships with GoJ counterparts play an important role in achieving the mission. If U.S. representatives have a good relationship with their GoJ counterparts, they are more successful in negotiating changes and getting items incorporated that are advantageous to U.S. forces. JED protects U.S. interests at every stage and looks for ways to transfer the cost burden from the installations to the GoJ. If JED can persuade the GoJ to pay for equipment, furnishings, and other items that would normally be service-funded, installations can use their scarce dollars on other critical items.

For example, at a medical/dental clinic currently being built at Kadena Air Base in Okinawa, JED negotiators successfully convinced the GoJ to incorporate 38 user-requested changes to date, saving the U.S. nearly half a million dollars, said Okinawa resident engineer Shigeru Yoshimoto.

The JFIP process closely parallels the U.S. MILCON program, but there are significant differences. For MILCON, the U.S. government funds and awards contracts for design and construction. Under JFIP, the GoJ funds and awards the necessary contracts. JED performs oversight and coordination throughout the design and construction phases to ensure the completed facilities meet U.S. standards and requirements.

**The Vehicle Maintenance Center at Misawa Air Base in Japan is a great value for American taxpayers because the Japanese Government bears a partial burden for its cost. (Photo courtesy of Japan Engineer District)**

**The Cultural Center at Camp Zama, Japan accomodates many activities for U.S. servicepeople. (Photo courtesy of Japan Engineer District)**

The engineering process is key to developing a new facility. For the project's inception, the customer prepares planning documents in concert with USFJ. JED, in turn, develops bilingual criteria packages for budgetary purposes and to provide technical guidance to the architect engineer contracted by GoJ. A technical review board conducts a close study of complex projects. When needed, JED's Technical Rapid Deployment Force, composed of bilingual architect engineers, conducts reviews at remote locations throughout Japan. This process has virtually eliminated horror stories and improved the quality of the facilities being built.

A project usually takes five to seven years to complete from the user's initial submission of a project request through the approval process and construction. The completed facilities are high quality, and include state-of-the-art equipment and construction technologies.

But the program is not without challenges, said Yoshimoto.

"We, in the field, have a big challenge in carrying out GoJ funded projects," he said. "We don't have a contract with the contractors. We do not manage the contract, yet we must assure the facilities meet the U.S. standards and the user's operational requirements."

Yoshimoto pointed out a few more differences between U.S. MILCON and JFIP projects. In the U.S., contracts are usually awarded to a single prime contractor. In Japan, the norm is to award multiple separate contracts for each project (one for each design discipline or construction trade) with no prime contractor. And each contract has its own schedule.

Another difference is that GoJ often awards construction contracts while parts of the project are still under design. This significantly increases the need for engineering coordination during construction. Also, U.S. projects normally have a one-year warranty period, while JFIP projects enjoy a two-year warranty.

"Despite the differences, completed JFIP projects are high quality, comparable to any U.S. funded project," said Yoshimoto.

Overall, the JFIP program is probably one of the U.S. government's best investments, said Constantaras. For a relatively minor contribution in MILCON funds, the USFJ enjoys a myriad of modern facilities that enable them to maintain their combat readiness and quality of life.

# Savannah supports troops withtraining, quality of life facilities

**Article by Nancy Gould**
**Photos by Jonas Jordan**
**Savannah District**

If the President gives the order to deploy, the paratroopers at Fort Bragg, N.C., are ready to go. Savannah District plays a major role in supporting these soldiers, and the service members at six other Army and six Air Force installations. The district equips these forces with some of the most up-to-date training and quality of life (QOL) facilities in the world.

Savannah District's largest QOL project is the $250 million Womack Medical Complex at Fort Bragg. Active and retired soldiers and their families will receive state-of-the-art medical treatment at the complex beginning next September. Covering 163 acres, the complex measures more than one million square feet and is almost twice the size of the fort's existing hospital.

Savannah District built facilities for the U.S. Army Reserve Command at Fort McPherson, Ga.

The new Audie Murphy Barracks, costing $25.7 million, provides housing for soldiers at Fort McPherson, Ga.

*A Vital Part of the Army*

Fort Bragg's Faith Barracks Complex, a first-of-its-kind facility, looks more like a college campus than a military complex. Savannah District designed this $56 million facility based on survey results that revealed soldiers' likes and dislikes about barracks living. Designers strove to give the soldiers of the 82nd Airborne Division who were to live there more amenities than they had ever had before. The final group of soldiers moved into the barracks last January.

"Soldiers are enjoying the new barracks, they really are," said Command Sgt. Maj. James Dixon, 82nd Airborne Division Support Command. "There's a lot more privacy. Once upon a time, the Army had community latrines; now soldiers have their own personal latrines. And they also have a private entrance to their rooms."

The 1st Brigade Area Barracks Revitalization, slated for construction contract award this fiscal year at Fort Bragg, will rival even Faith Barracks. "Besides the Womack Medical Complex, this $125 million project will be the single largest military project Savannah District has undertaken," said Diego Martinez, senior project manager for Fort Bragg. "It will be another Corps showpiece. The project consists of nine barracks, three soldier community buildings, a general purpose warehouse, a dining facility, eight double company operations buildings, three battalion headquarters, a brigade headquarters, and supporting facilities."

According to Wayne Urbine, assistant chief of Military Programs and Project Management Branch, the district's fiscal year 1999 (FY99) workload for design and construction placement at Army installations is about $377 million, funding 82 new projects. The workload for Air Force installations is about $112 million, funding 60 new projects. The total projected design and construction placement workload, about $1.3 billion, includes work going on now until FY03.

Another large project scheduled for construction contract award this fiscal year at Fort Bragg is the $30 million Departure/Arrival Control Group (DAACG). The new facility features an air terminal where soldiers wait to board the aircraft. They no longer have to wait with their gear outside on the runway in the cold and the heat before boarding a plane to jump or deploy. The DAACG also features expansive operations and cargo processing areas.

But the soldiers at Fort Bragg are not the only troops Savannah District serves in its massive construction program. "The district has 12,917 quality living spaces for soldiers either under construction this fiscal year or planned for construction at four Army installations before FY03, and there could be more," said Urbine. "Fort Benning, Fort Gordon, Fort Stewart and Fort Bragg contain 12,443 spaces. The other 474 are at Pope Air Force Base."

Troops stationed at Fort Benning, Ga., will also soon get upgraded barracks. A $30 million construction contract to renovate a three-barracks complex is slated for award this fiscal year. The Army's first metric designed barracks complex at Fort Jackson is now 75 percent complete. The $30 million complex should be ready for soldiers by next November.

At Fort McPherson near Atlanta, Ga., Savannah District has completed more than $60 million in projects, and future projects at the base will add up to another $5 million.

The U.S. Army Reserve Command and Control Center at Fort McPherson is a $29 million building with more than 220,000 square feet on its five floors and houses 850 military and civilian employees. It has a cafeteria, a command briefing room with seating for 100, large computer rooms, and a three-quarter basement with the command's historical archives and a production studio.

Faith Barracks at Fort Bragg, N.C., is home to soldiers of the 82nd Airborne Division.

Soldiers at Fort McPherson recently moved into the new Audie Murphy Barracks. The $25.7 million complex has two three-story barracks, a soldier's community center, four company operations buildings, and a battalion headquarters.

Air Force installations also get their share of district support. Pope Air Force Base, located next door to Fort Bragg, provides combat airlift support to soldiers, like those of the 82nd Airborne Division, who have the capability to deploy contingency units within 18 hours of notification. To make this service possible, parking ramps where C-130 transport planes reside must be kept in good condition. Last fiscal year Savannah District managed a $1.8 million construction contract to repair Pope's runway.

Facilities and state-of-the-art hospitals and dental clinics that the district builds for the soldiers and airmen rival the best in the private sector. The soldiers' children are educated in modernized schools with up-to-date, spacious libraries.

And the Corps builds training facilities, such as the free-fall simulator at Fort Bragg, which prepares elite paratroopers like the Special Forces for high-altitude/low-opening jumps by letting them simulate a free-fall jump and perfect their technique before they actually make the jump.

The district supports soldiers in another way. When one soldier was killed and 10 were injured after a tornado touched down at Fort Stewart, Savannah District was quick to offer assistance. The district re-built a vehicle maintenance building that was totally destroyed and repaired the damage to 53 other buildings. An assessment team was on-site, sizing up the initial damage to the installation, the same day the tornado hit. The following day, three more teams arrived. Altogether, 21 individual task-orders, totaling about $15 million, were issued for numerous repairs.

Savannah District managed the work using the quickest contracting tool available for such emergencies — two indefinite-delivery/indefinite-quantity contracts, already put in place at the installation by the Huntsville Engineering and Support Center.

In a letter to the district, Maj. Gen. James Riley, commander of the 3d Infantry Division, commended the Savannah team for its assistance.

"I would like to express my appreciation and commend you and your staff for the outstanding support the Savannah District engineers provided....It is this kind of partnering that best exemplifies what the Chief of Engineers...is championing."

The district's support to these military installations allows U.S. Army troops to be the world's premier power-projection forces. And Savannah District will continue to look for innovative ways to sustain these point-of-the-spear units into the future. The Special Operations Command, the 82nd Airborne Division, the 3rd Infantry Division, and the Ranger battalions at Fort Benning are just a few of the combat fighters who are standing-by, ready to defend our nation, backed up by quality facilities designed and built by the Corps.

Womack Army Medical Center, at Fort Bragg, N.C., is Savannah District's largest quality of life project. It will begin treating patients next September.

# District promotes troops' environmental awareness

**By Marnah Woken**
**Europe District**

U.S. Army, Europe (USAREUR) and Europe District have joined forces to create an environmental handbook, flashcard, and video designed for working in a deployed environment.

*A Vital Part of the Army*

Titled *"You Spill, You Dig,"* the materials focus on environmental protection and pollution prevention during a contingency operation. The handbook provides deployed soldiers everything they need to know on keeping the environment clean and safe.

"The handbook, video, and flashcard are basic guides for transporting, handling, storing, and disposing of hazardous materials and wastes in a deployed environment," said Robert Flowers, Planning and Environmental Project Manager. "They focus on soldier safety and environmental protection under potentially difficult conditions."

The handbook is organized around the concepts of environmental protection and pollution prevention, and arranged in sequence from pre-deployment to redeployment. It provides information on predeployment planning, transportation, establishing and maintaining camp at a deployed location, breaking camp, redeployment, and spill and accident response.

The pollution prevention section of the handbook illustrates the proper way to store hazardous materials, how to prevent environmental accidents, how to set up and maintain maintenance areas, fuel points, and hazardous material storage areas.

The spill response section of the handbook provides information on how to use a spill kit, how to respond to a spill, reporting a spill, and how to dispose of hazardous wastes.

"In the event of an accident, the handbook provides easy-to-find and easy-to-use information," said Flowers. "It's intended to help the soldiers and their unit run a clean, safe, and effective operation."

"We did our best to keep the handbook from looking like the typical Army publication by using interesting color, language, graphic design and even letter style," said Flowers. "I think we've succeeded in producing an informative and interesting guide that will be useful to the deployed soldier wherever he or she may be. A soldier doesn't have to know everything in the handbook to be able to use it effectively to solve a specific problem."

The flashcard was created to present the most important information quickly and clearly. It was also designed to fit into a soldier's uniform pocket.

"The flashcard is a scaled-down version of the handbook and lists the basic housekeeping rules necessary to ensure hazardous materials are managed properly," said Flowers. "It takes up less space than the handbook and is more likely to be carried by soldiers in the field."

The 17-minute video has some of the same information as the handbook, stressing the importance of environmental protection.

"The video was intended to be used as an information aid during meetings and other training opportunities," said Flowers. "The video uses real examples of how to do the job correctly."

Garry Zettersten, Chief of the Environmental Division at Headquarters USAREUR Deputy Chief of Staff, Engineer was also involved with the project. "The video, handbook, and flashcard are instructional aids and give soldiers the basic tools to protect themselves and the environment," said Zettersten. "We've given the handbook to a number of Eastern European countries, and Hungary is considering having the handbook translated for use in their country."

Zettersten added that some of the handbooks were distributed at the 1998 U.S. European Command Environmental Conference in Hungary, conducted under the Partnership for Peace Program. The video was also shown at the conference, which provided a valuable critique of the materials.

Staff Sgt. Giani Manieri, responsible for environmental protection at the troop unit level during his deployment to Bosnia commented, "The video will be extremely useful as part of the soldiers' orientation to base camp life. The handbook and flashcards will be daily reinforcement, making my job much easier in the long run."

Bill Nicholls, Environmental Protection Specialist for USAREUR, also played a major role in the project.

"We wanted to create nontechnical, soldier-friendly informational aids on the proper handling and management of hazardous materials," said Nicholls. "The handbook, flashcard, and video accomplish that and also address the personal safety and health issue. They provide information on eliminating the possibility of adverse health effects to deployed soldiers. We've found that, given the right tools, information, and resources, today's soldier is very concerned about keeping the environment clean."

*(For more information on the environmental handbook, flashcard and video, contact Bill Nicholls at civilian (49) 6221-57-9073, or DSN 370-9073.)*


**The *You Spill, You Dig* handbook is designed to fit into the pocket of a soldier's battle dress uniform. (Photo courtesy of Europe District)**

# *Housing upgrades impress soldiers*

**By Marnah Woken**
**Europe District**

Army Family Housing units in Building 290 in Mannheim's Benjamin Franklin Village sport a new look these days, thanks to the Army's Whole Neighborhood Revitalization (WNR) program. A recent ribbon-cutting ceremony opened the area's first family housing units to receive extensive interior and exterior renovations under the Department of Defense program.

The WNR program involves extensive renovations and repair of Army housing units throughout U.S. Army, Europe (USAREUR). Along with interior renovations, the program upgrades neighborhood amenities such as entrance areas, landscaping, and parking areas to a universal Department of Defense (DoD) standard by the year 2010.

Europe District's Project Engineer Scott Deetz is working on the Mannheim project with the contracting firms of SBA Heidelberg ARGE D&B/H and Eisinger GmbH.

Families moving into the renovated units in Mannheim and throughout USAREUR will enjoy second bathrooms, personal laundry facilities, and new kitchen cabinets and appliances.

"These apartments are a big improvement and are needed in the community," said Eddie Sumlin. "The washer and dryer and the extra bathroom are a big plus." Sumlin and his wife, Sgt. Gabrielle Sumlin and their children, 2-year-old Collin and 4-year-old Keith, were one of the first families to occupy the newly-renovated units.

Sgt. First Class Kevin Coy, his wife Yong, and their 13-year-old daughter Tara are also one of the first families to move in. "I was the assistant area coordinator so I watched the progress of the project and reported back to the residents as it was being completed," he said. "Everyone really did a terrific job. The plan was good and the quality of work was excellent. The private laundry facilities are really going to be nice. I also like the electrical conversion option. That way we won't have a lot of transformers on the kitchen counter."

Jenny Betts, wife of Spec. John Betts, and their two children, 7-month-old Jackalyn and 3-year-old Desiree, helped cut the ribbon to the newly-renovated units. "I'm really excited about moving in," said Jenny Betts. "It looks so much nicer than where we're living now. The living room is much bigger, the floors are much nicer, and there's a lot more cupboard space in the kitchen."

"I'm really going to enjoy having a washer and dryer in the apartment," said John Betts. "Now we'll have another bedroom and bathroom, which is great because we have two children."

A second set of apartments in Benjamin Franklin Village were completed in September, and two additional buildings were gutted and rebuilt beginning in October. The $9 million project was funded in 1997 and includes Buildings 290, 292, 293, and 295.

*(Mary Schmidt of the 293rd Base Support Battalion contributed to this article.)*

# Challenge becomes training opportunity

**By Linda Greene**
**Omaha District**

Environmental cleanup poses many challenges. Years of ignorance or neglect make each contaminated site a challenge that requires both hard science and creative thinking. An Omaha District environmental team used both to clean up a site at Pueblo Chemical Depot, Colo.

The site had been used from the 1940s to 1974 for cleaning TNT from unused munitions. Most of the wastewater from the cleaning process was treated with filtering solids that allowed the remaining liquid to flow to an outdoor sump. Overflow from the sump channeled into a quarter-mile-long drainage ditch leading to an evaporation lagoon.

*A Vital Part of the Army*

"Unfortunately, wastewater overflow from the lagoon seeped into a natural drainage-way, contaminating the soil as it migrated to a nearby creek," said Jay Hodges, project manager. "To clean the site, the contaminated soil in the artificial and natural drainage ditches needed to be excavated and treated or disposed of to meet Colorado's stringent specifications.

"Assessment of the site showed the drainage ditch was about 1,400 feet long by 10 feet wide and contamination data indicated the potential for excavation depths to be eight to 14 feet," said Hodges. "This type of narrow, deep excavation would require either sloping, benching, or shoring the trench walls to eliminate cave-ins. Shoring was cost-prohibitive and soil characteristics eliminated benching, so it appeared that sloping was initially our best choice."

But sloping also brought problems. "Sloping impacted adjacent soil and, because of Colorado's high environmental standards, we would be required to manage and dispose of the additional soil," said Hodges. "This drove up the cost. What we needed was a method to remove the contaminated soil that neither impacted the clean soil nor created cave-ins."

Not an easy task, but that's when the creative thinking caps went on and the technical team came up with a novel solution. One of the contractor personnel noticed an Armored Vehicle Launch Bridge (AVLB) which belonged to the 4th Engineer Battalion at Fort Carson, Colo.

"Used during combat, an AVLB is a folding portable bridge that is transported on the top of a M-60 tank chassis," said technical manager Jerome Stolinski. "When unfolded, it can span up to 60 feet while supporting 70 tons of equipment."

The team came up with the idea of using the AVLB to straddle the narrow strip of contaminated soil, then placing a backhoe on the bridge directly above the contaminated area.

"We could dig, remove, and load the soil into waiting trucks, then continue advancing forward simply by moving the AVLB, following the path of contaminated soil. This eliminated the need for sloping."

Until then, the 4th Engineer Battalion at Fort Carson had conducted AVLB training in the battalion parking lot. When Stolinski and the contractor brought their idea to the battalion, it seemed like a great chance for actual field training.

The AVLB with its two-man crew performed beautifully.

"In the end, we saved the government about $200,000, plus it gave the battalion an opportunity to better train four soldiers on the deployment of the AVLB under field conditions," said Stolinski.

On average, the trench was dug only 10 feet wide, but using the AVLB allowed the contractor to consistently dig down to groundwater level, more than meeting Colorado's standards. Backfilling the trench with clean soil brought the project to closure.

**An Armored Vehicle Launch Bridge, a folding portable bridge for combat, came in handy for a tough clean up challenge for Omaha District. Using the bridge also helped the 4th Engineer Battalion at Fort Carson, Colo., train with the equipment in a real situation. Above, the bridge unfolds. Below, a backhoe rests on the bridge while moving contaminated soil into a truck for transport. (Photos courtesy of Omaha District)**

# Combat engineers sharpen skills on Alaska project

**By Tim Feavel**
**Alaska District**

When C Company of the 864th Combat Heavy Engineer unit needed some real-world projects to hone their construction and equipment operator skills, Alaska District's Chena Flood Control Project was ready to help. Last summer, the 864th, an active duty unit at Fort Wainwright, Alaska, made the Chena Project their home for a couple of weeks.

Commanders of engineer units know there is only one way to sharpen soldiers' skills in operating a piece of engineer equipment -- have them climb on one and operate it. Also, to be ready to deploy overseas, soldiers need to be certified and practiced on their assigned equipment.

Combat heavy engineer units divide their personnel and equipment into two general categories, horizontal and vertical. Horizontal assets include the heavy equipment and operators to build roads, while vertical assets such as carpenters, plumbers, and electricians build structures.

For two weeks, the horizontal section moved riprap from an existing stockpile to an eroded dry slough bank off the Chena River Floodway. The job required a D-8 bulldozer, five-ton dump truck, and 2.5-yard loader. Meanwhile, the vertical section built forms and poured concrete for a culvert apron and wing wall. To be close to their work and equipment, the soldiers bivouacked in the Visitor Kiosk Day Use Area near the Moose Creek Dam Outlet works.

Soon after leaving the Chena Project the 864th prepared to mobilize to Kosrae, an island in the South Pacific, for a six months training exercise where they will train until next spring.

Construction projects at home station are not always so easy to find because of certain requirements. Projects must be of a type that would not normally interest a local contractor. All environmental concerns and approval must be in place.

But Army engineer units frequently do community construction projects, including building baseball diamonds, wildlife lookout platforms, picnic shelters, and boat ramps. Domestic Action Projects, as they are officially named, give combat engineer soldiers the hands-on training they need to stay proficient in their construction skills, while improving the local community and giving positive exposure to soldiers.

# Bosnia

Continued from page one

national Division North. They're part of Task Force Eagle, which 1st Cavalry Division assumed command of in October. National Guard and Reserve units are also part of the force structure. The U.S. sector is often referred to as Tuzla Valley, and Task Force Eagle's headquarters is on a former Yugoslavian air base at Tuzla. Military units are also located at six major camp sites and four remote locations in the U.S. sector.

Providing these facilities to our forces is a team effort, starting with U.S. Army Europe (USAREUR), which has overall responsibility for the theater operations, and ending when the Army's individual camp mayors "own" the completed structures.

## A Vital Part of the Army

"The environment is one of constantly changing dynamics, whether it's establishing or decommissioning camps or sustaining services at existing camps," said Alan Moses, program manager, Office of the Deputy Chief of Staff for Logistics at USAREUR. "USAREUR must meet the needs of the young men and women who are committed to keeping the peace in Bosnia. They're America's finest.

"Our focus is on meeting their life support and logistical needs so that they can concentrate completely on their military mission," Moses continued. "The sustainment contract meets a significant portion of this need."

The sustainment services contract grew out of TAC's management of the Army's Logistics Civil Augmentation Program (LOGCAP) contract, designed to provide engineering and logistics services to troops deployed in overseas contingency scenarios. The LOGCAP contract with Brown & Root Services Corp. supported six contingency events from 1992-1997, including the efforts in the Balkans beginning in December 1995.

### Contractor support

"With primarily combat troops assigned to the Balkans, we've relied on the logistics contractor heavily to provide basic life support services and operations, such as tent camps, food services, laundry, fuel and water distribution, and transportation," Gruber said. "The level of contractor support changes with the U.S. troop commitment to the region."

"Indeed, with the magnitude of this operation, and in this theater, we are writing contracting doctrine," Moses said. "It has been a total team effort to develop a contract instrument of this magnitude, one that is flexible to meet changing missions. We can turn the contractor on for new missions in the theater, almost as simply as making a telephone call."

Generating work can start at the USAREUR and Task Force Eagle level, or it can be initiated from the "bottom up," when the Army's camp mayor requests improvement of the facilities or services in his or her camp.

The process, which involves several organizations to make it successful, has been honed to a simple list of actions. Best of all, it has been automated, allowing the camp mayor to track work requests.

"If the work request is a service order to fix something in place (such as a water main break) and the cost is below $2,500, I can pass that action directly to my Brown & Root camp manager, Harry Albright," said Capt. Mike Farley, mayor of Camp Bedrock. "If the work item is above that amount or for a new requirement, then it goes to the Base Camp Coordinating Agency (BCCA)."

**These large buildings, called "seahuts," are sectioned to provide sleeping quarters for six per room.**

The BCCA at the Tuzla air base functions as a Directorate of Public Works, establishing camp standards, setting priorities, and insuring close cooperation between the construction phases.

"The BCCA determines how the requirements will be met," Gruber said. "The options are host nation support, military engineer units, the contractor, or a combination thereof."

"In certain instances, work is assigned to both military engineering units and to the contractor," said John Downey, Brown & Root's Task Force Eagle project manager. "For these joint projects, the engineer units might perform the foundation work or some of the building construction. In all cases, we've found working with these highly professional units to be very rewarding."

Gruber said that when the requirement is fulfilled under terms of the contract, the Administrative Contracting Officer (ACO) requests a rough order of magnitude cost estimate from Brown & Root.

### Agreements

The ACOs come from the Defense Contract Management Command (DCMC), with whom TAC has a memorandum of agreement for these services. DCMC's 24-member team provides daily contract administration, quality control, and property accountability. They work directly with Gruber to insure that the contract's terms and conditions are complied with.

Task Force Eagle has the authority to approve work orders costing up to $50,000; items costing more must be approved by USAREUR. When the BCCA issues the approval, the ACO issues a notice to proceed to Brown & Root.

Besides engineering tasks associated with building the life support areas and camp management, Brown & Root's employees provide logistics services to all Task Force Eagle camps and remote sites.

"Our employees are a mixture of Americans and local hires, and we tend to hire locally as much as practical," Downey said. "This provides two distinct advantages. First, it saves money for the U.S. government because local wages are less than those of expatriates. Second, this hiring philosophy employs people in this war-torn country, using their talents and getting the work done faster because they know how to most effectively operate in their country."

The company has literally hundreds of team members, including drivers, laundry attendants, carpenters, electricians, plumbers, heavy equipment operators, superintendents, site coordinators, camp managers, and managers.

"Our company has been delighted with the quality of the local work force, from workers who have reestablished defunct water purification systems to artisans who take great pride in their crafts," Downey said. "Their work standard is high and they're dependable. To give just two examples of many, we have a 22-year old Bosnian woman who runs our entire laundry operation. And a young man established a customized computer tracking system for vehicles serviced and managed at our central maintenance facility, which services our entire military and commercial vehicle fleet."

The company's average level of service effort on any given day is staggering:

- Prepare and serve 25,862 meals.
- Launder 2,052 bags of clothing.
- Produce more than 607,000 gallons of potable water.
- Collect and incinerate 321 cubic yards of refuse.
- Distribute 24,162 gallons of fuel.
- Extract and dispose of 76,286 gallons of waste.
- Transport 471 mail bags.
- Collect and dispose of 20 55-gallon barrels of hazardous wastes.

"When you're touching peoples' lives every day and making a difference every day...well, that's what's important," said Bob Ellis, Brown & Root's theater manager. "From the time we get up in the morning until we go to bed at night, our corporate focus is on how we can make soldiers' lives better while they're in the Balkans theater."

While a significant portion of the contracting effort is in Bosnia, the contract also supports the U.S. National Support Element's activities in Hungary, Croatia, and Bosnia, with Brown & Root's work being markedly different from its work for Task Force Eagle, according to Ellis.

### Hungary

The U.S. National Support Element at Taszar Support Base, located on a Hungarian air base, serves as USAREUR's logistical hub for the deployment and redeployment of forces associated with Operation Joint Forge. This air base has been used as a staging base since the start of the Balkans operation.

A support base at Slavonski Brod, Croatia, has served as a convoy support and redeployment staging area as troops moved from Hungary to Bosnia. USAREUR determined that this base is no longer needed, and it will close in December. In the meantime, a smaller convoy support center is being established in Okucani, Croatia.

Through the sustainment services contract, Brown & Root also provides support to National Support Element personnel operating in Zagreb and Sarajevo. The work includes equipment maintenance and supply support.

The change in the support base in Croatia is an example of the dynamics of operating in the theater. The constantly changing scenario is challenging for TAC and USAREUR as they prepare for the competitive award of a new logistics services contract next February that will become effective in May 1999.

"Management of a contracting action of this magnitude has never been a textbook example, but it is *becoming* a textbook example," Moses said. "And, it's been done at the best value to the U.S. taxpayer."

# Ranger enables others to enjoy outdoors

Frank Laster was 20 years old in 1969 when he stepped on a land mine in Vietnam. His left leg amputated below the knee, the Marine corporal's military career was over.

Today, Laster is in the U. S. Army Corps of Engineers as a park ranger at Enid Lake, where he uses his experiences and understanding to create an outdoors experience for those trying to learn or relearn how to enjoy the outdoors despite their challenges.

Laster said he felt like he could enjoy the outdoors despite losing a leg, and he wants to bring that message to others. He takes his example from a childhood amputee friend. "I saw the things he did," Laster said. "I knew if he could do all right, so could I."

That can-do attitude helped Laster, who now wears a prosthesis, out of a wheelchair and into life's mainstream. But none of it was easy.

Laster had dropped out of school and, before Vietnam, was a route salesman for a vending company. "All I knew was physical labor," Laster said. "My career was pretty much ended. But since my accident, the Lord has blessed me with a good life."

The eighth-grade dropout earned his General Equivalency Diploma by checking a book out of the library, taking the test on his own, and passing it. He earned a degree in agriculture from Mississippi State University, and joined the Enid Lake Field Office in 1986.

Laster also married, raised three children, took flying lessons and, for the past six years, helped organize fall fishing expeditions for others with disabilities. This year the event was Oct. 17 at Enid Lake.

"Participants are usually wheelchair participants, but it's not just for people in wheelchairs," said Laster. "It's for anybody who is physically challenged.

**Park ranger Frank Laster, himself an amputee, welcomes back a return participant in the day of fishing for the physically challenged at Enid Lake. Laster coordinates the event. (Photo courtesy of Vicksburg District)**

I've been in a wheelchair, and it's like a sentence. The fishing program is to give these guys a day of fun to show them that, whatever their impairments might be, it's not a death sentence."

From across Mississippi and as far away as Arkansas, Tennessee, Kentucky, and Alabama, those who come to fish for a day with Laster are referred by agencies such as Mississippi Methodist Rehabilitation Center in Jackson and Paralyzed American Veterans in Memphis.

"They spread the word," he said. "They reach so many people with their newsletters."

Randy Lavender of Tupelo, Miss., regional coordinator for the Jackson-based Coalition for Citizens with Disabilities and Living Independently for Everyone (LIFE), is among those who spreads event fliers. "I think it's a great project," Lavender said. "It's a big get-together."

This year, 27 men and women participated in the program, bringing their spouses, children and other relatives, up from the "three or so" who attended the first year in 1992. More than 100 volunteers showed up to make the event run smoothly.

Catching fish this time of year is often tough for the best angler, but local fishermen help out.

"This time of year, the majority of the fish are caught by fishermen trolling on pontoon boats," said Jimmy Carver, Enid Lake resource manager. For better access, area fishermen donate the use of their pontoon boats and guide participants to the best fishing spots.

After a morning on the lake, it's back to shore for a meal of fish and fixings donated by volunteers in the communities of Chickasaw, Water Valley, and Batesville. "The people that really keep this program going are the volunteers," said Carver.

The event is free to participants. "I think it has a lasting effect," Laster said. "You can see it in their faces. That's the reward, when you can see that type of reaction."

Laster got the idea for the event from his own rehabilitation at the Philadelphia Naval Hospital, where he was among a group of patients taken deep sea fishing. Laster wants to show others, new patients in particular, what they are capable of after an injury.

"They don't think that they can do it," Laster said. "This gives them an opportunity to see they can."

The fishing activity also boosts independence in the lives of the disabled, said Lavender, a paraplegic since a motorcycle wreck 13 years ago.

"Most people, after an accident, kind of stay in their houses and don't do anything," Lavender said. "They think getting out like this is a lot harder than it is. They'll find out it's easy and so enjoyable."

*(A contract writer for Vicksburg District wrote this article.)*

# New terminal can handle large deployments

**Article by Alicia Gregory**
**Photo by Jonas Jordan**
**Savannah District**

In World War II, the 3rd Infantry Division was one of the Army's premier assault units. Gen. Lucian K. Truscott, Jr. led the division in battles North Africa, Sicily, Italy, and France. Today, the 3rd Infantry Division (Mechanized) is part of the XVIII Airborne Corps, one of the nation's premier units for dealing with contingencies. The 3rd ID deploys through Hunter Army Airfield in Savannah, Ga.

On Oct. 30, a ribbon-cutting ceremony dedicated the new Departure/Arrival Airfield Control Group (DAACG) facility, named the Truscott Air Terminal. Savannah District managed the design and construction of the 72,000-square-foot facility, which consists of a terminal, an operations area, and a combined pallet storage and a state-of-the-art cargo processing area.

The $8.4 million facility includes an 11,375-ft. runway, the Army's longest east of the Mississippi River. It can handle any Air Force plane, including the C-5A Galaxy, C-17 Globemaster, 747, and 777. It is also a back-up landing site for the space shuttle.

From the airfield, soldiers from the 3rd ID's Immediate Ready Company can deploy within 22 hours, and the brigade combat team within 72 hours, to any area of operation across the globe. In the past year, soldiers have deployed from Hunter to Kuwait, Egypt, Haiti, and Bosnia.

The new facility is large enough to accommodate 4,600 soldiers. VRL Architects of Jacksonville, Fla. designed the facility, and ACC Construction Company of Augusta, Ga. began construction in September 1996.

The troop-processing terminal, which can house and feed 1,500 soldiers for up to 48 hours before deployment, is equipped with shower facilities, cot storage and sleeping areas, and a food preparation area.

"No longer will we have to stand out in the rain because we don't have

**The climate-controlled terminal can accomodate 1,500 soldiers, and is equipped with a snack bar, shower, and sleeping areas.**

cover," said Maj. Gen. James Riley, 3rd ID commander. "No longer will we be disconnected from our friends in the Air Force because we can't be in a common facility, and no longer will we have to chase up and down this runway looking for one another as we try to organize these deployments."

# Landscape architect has handful of green thumbs

**By Christina Plunkett**
**Jacksonville District**

A local weatherperson called it the coldest day of the year last winter. But rather than curling by the fireplace with a hot drink, Paul Stevenson volunteered to help Greenscape of Jacksonville, Inc. plant crepe myrtles and oak trees at Greenland Road Park.

That was just one of hundreds of volunteer activities that Stevenson, the district's only landscape architect, has participated in during all kinds of weather to help beautify Jacksonville.

Forget green thumbs. Stevenson *bleeds* green. The list of organizations he gives his time, landscaping and plant knowledge, coordinator and design talents, and back-breaking labor to is long and varied. Along with Greenscape planting parties, he's also does several planting projects each year for Jax Pride and Habijax, and the Corps' Take Pride in Lake Okeechobee event.

Don't let the word "party" fool you. There's more involved than digging holes and dropping in trees. A typical Greenscape planting event has Stevenson doing the planning, preparation, and oversight. He determines the amount and type of plants, fertilizers, mulch and soil needed; sets up before the event by "flagging" the tree locations; unloads them from the trucks and coordinates with the compost facility. On the day of the "party," Stevenson puts up registration tables for volunteers; educates the volunteers on how to install plants and mulch; and acts as a zone foreman for the event.

Stevenson has worked with other groups for almost a decade, including the National Parks and Conservation Association, the American Society of Landscape Architects (ASLA), and the Baby Trees Committee.

As Chairman for the Jacksonville Section of the ASLA's Florida Chapter, Stevenson and his group's professional volunteers work on landscape design charrettes (sketches) for various city projects throughout the year. These projects can be requested by a community group or the mayor himself. This year, the ASLA created landscape plans for improvements to the park at Hogan Creek, and created a streetscape along King Street in the Riverside area.

Each spring, the group sponsors a golf tournament at Eagle Harbor in Orange Park to raise scholarship money for University of Florida students majoring in landscape architecture.

After 15 years of dedication to land stewardship and landscape design both professionally and afterhours, Stevenson's labors blossomed into recognition. In April, Jacksonville Mayor John Delaney gave Stevenson the Greenscape Canopy Award for Individual Service at the Mayor's Annual Environmental Luncheon. And the district honored Stevenson's volunteer work by selecting him for the 1998 Community Service Award.

Stevenson's passion for preserving and planting trees goes back to his roots. He fondly remembers growing up in New Jersey in a mountaintop home overlooking a wooded valley with a spectacular sunset view. Spending many summers on his relatives' farm in Illinois, he learned the importance of proper stewardship of the land through a farmer's eyes at an early age.

During high school, Stevenson's love for nature grew through fishing, camping, and helping his father landscape their yard. Stevenson earned his bachelor's degree in landscape architecture from the University of Florida in 1984. During the next five years, he worked at various landscape positions where he increased his knowledge of the business. He joined Jacksonville District's Recreation Development Section in 1990.

The recreation projects Stevenson has contributed to include the Cerrillos Dam Recreation Plan, and the Huguenot Memorial Park Master Plan and Guidelines for Federal Lands Project. The Huguenot project focused on the coordination and resolution of public and agency environmental concerns.

**Jacksonville's Paul Stevenson plants trees in any weather. (Photo courtesy of Jacksonville District)**

In 1993, during the Hurricane Andrew Recovery Operation, Stevenson led a nationwide Corps team that coordinated and wrote 23 hurricane debris closure reports in 45 days. He received the Commander's Award for Civilian Service for this work, which stood up in court under the test of lawsuits.

The urban beauty projects that Stevenson has volunteered for are sprinkled throughout Jacksonville. When visiting an auto or garden show at the Prime Osborne Center, rows of crepe myrtles brighten the exit ramp to the Center. On the way to Atlantic Beach, a streetscape of date palms, crepe myrtles, and blooming shrubs and flowers welcome the steady stream of cars passing over the Intracoastal Waterway. And the beautiful color at Alltel Stadium which is provided by oaks, maples, sycamore trees, and crepe myrtle bushes was a Greenscape planting project.

**New Orleans District's Jim Courville is on the dredge *Wheeler* by day, on the dancefloor by night. (Photo courtesy of New Orleans District)**

# *Off the dredge, he's heel stomping*

**By Joyce Tsai**
**New Orleans District**

He might be best known at the district for his expertise on the dredge *Wheeler* but, after hours, Jim Courville, head of Physical Support Branch, is best known for his ability to do a perfect kick-ball-change, pivot, or heel stomp.

Courville founded the Honky Tonk Stompers a little less than three years ago. Since then, it has grown to become the largest country western line dance group in Louisiana. With 120 members, it's the main source of line dancing in the area.

Courville has performed with his club in a number of venues. Most recently they were on national TV introducing a new line dance to the country dance repertoire. As guests on the TNN show "Dancing at the Wild Horse Saloon," Courville and his fellow dancers donned Stetsons and cowboy boots, tapped their feet and stomped their heels in perfect row and rhythm.

His group has performed at the New Orleans Country Dance Mardi Gras, numerous local festivals, dance cruises, nursing homes, shopping malls, and charity events. Their fancy footwork has also been featured on an instructional dance video called Dance Link.

When the group isn't on the road performing, Courville and fellow dancers are at their favorite watering hole, Mustang's Wild Horse Saloon in Kenner, La., or the Moulin Rouge in Marrero, La. Three nights of the week they're perfecting their cowboy stomp or electric shuffle, and teaching new dance steps to aspiring beginners.

"A lot of people who first start are real shy, not wanting to seem clumsy or look awkward, but everybody was at the same stage at some time," Courville said. "But we're willing to work with you and excited to do it."

Courville said he and his wife were bitten by the line-dancing bug when they moved to New Orleans. One night, they passed a super-sized country western nightclub.

"My wife and I saw the crowd outside, and we thought, 'Let's see what's inside,'" Courville said. What they saw hooked them immediately.

"We were awed by the quality of the dancing," Courville said. "We vowed at that instant, 'We're gonna do that.' We learned two-stepping, waltzing, cha-cha, East Coast and West Coast swings, polka, and triple two-step, and once we got partner dancing down, we tried line dancing. The thing about line dancing is the more you learn, the easier subsequent dances become. And there are some dancers that make your eyes just water watching them."

Courville's favorite dance is the Swamp Thang. "It's six minutes long, but we say it's a 400 calorie dance," he said. "It's high energy!"

Courville says that what he likes most about line dancing is the feeling of community that transcends regular couple dancing.

"People generally get into line dancing because they don't have a partner," he said. "But instead of having one partner, you really have a whole dance floor of partners."

That feeling of community continues beyond the dance floor. "In the club we go on trips, and we've had crawfish boils, pool parties, and potlucks together," Courville said. "We've become a family, and as soon as anyone breaks out a CD, there's instant dancing."

# Around the Corps

## New chaplain

The new chaplain of the U.S. Army Corps of Engineers is Lt. Col. Harold T. Carlson, a 20-year Army veteran. Before coming to the Corps, he was the Deputy Post Chaplain of Fort Leonard Wood, Mo. Carlson reported to Corps Headquarters on Nov. 4.

## Regatta

For the past 20 years, Pittsburgh District has participated in the Three Rivers Regatta at Pittsburgh's Point State Park. The annual event drew more than 300,000 people this year. The district moored its red and gray barge on the Allegheny River, and more than 21,000 people walked up the gangplank and through the castle-gated entrance.

They saw displays of fish found in the Ohio River Basin, and stuffed wildlife including two owls, a groundhog, and wood duck eggs. There was a working model of a navigation lock, and a simulated canoe ride for the children which helped teach the lesson of always wearing a life-jacket in a boat. Visitors could also view many photos of the waterways industry and what it offers residents of Pittsburgh.

## Correction

Ken Weirich, who published a letter in the November *Engineer Update,* works in Savannah District, not Vicksburg District.

## Nebraska award

The state of Nebraska recently honored Kansas City District (KCD) for its innovative methods in cleaning up a former Navy ammunition depot at Hastings, Neb. The techniques included horizontal air sparging, soil vapor extraction, in-situ bioremediation, and recirculation.

The Blaine U.S. Naval Ammunition Depot was built during World War II and not closed down until 1967. It is one of seven Superfund Groundwater Contamination Subsites at Hastings. The work being done by KCD under the Formerly Used Defense Sites program includes cleanup of soil and water contamination, and removing gaseous contaminants by soil vapor extraction. Contaminants include volatile organic compounds from solvents, and TNT from explosives.

In a special events day in Hastings on Oct. 9, the Nebraska Department of Environmental Quality presented their Environmental Excellence Award to the district "for the successful implementation of several innovative treatment technologies (that were used at the Hastings site) to restore the environment in Nebraska."

## Dredge *Dubuque*

"We're maintaining the same nine-foot navigation channel for Mississippi River traffic with the same old dredges, but we're combining a couple of new techniques to get the job done more efficiently," said Rick Roffler, dredge operator and leverman on the dredge *Dubuque*. The dredge is operated by St. Paul District, and it was maintaining the nine-foot channel on the Mississippi River last October near Cottage Grove, Minn.

**Dredge *Dubuque* at work on the Mississippi. (Photo courtesy of St. Paul District)**

"Normally, we float our dredging lines on the surface, which means we have to cease operations each time a vessel passes," said Arnie Wodarz, Rivers and Harbors Unit foreman. "It's common practice to assemble pipe on shore and then transport it to the dredging site, but our team wasn't satisfied with the status quo," said Wodarz. "Mike Scheel, our lead welder, and Rick Roffler designed and built a superstructure for our work barge so we can assemble the piping right on the river. We're laying it on the bottom and keeping the channel clear for traffic."

This means savings on labor and materials for the Corps, and an open nine-foot navigation channel for recreation and shipping.

## Technology award

Brinda Jackson, an architect in Little Rock District's Design Branch, recently became the first Arkansan to receive a Women of Color Technology Award sponsored by the *U.S. Black and Hispanic Engineer* and *Information Technology* magazines. Jackson receive the national award in the Government Leadership category during a ceremony Sept. 26 Atlanta. Jackson and the award winners in 12 other categories were featured in special inserts in the October and November issues of the magazines.

Jackson earned the award for her work as the design leader of the Corps' regional design team for a finance center at Fort Sill, Okla. The $13 million project is converting an abandoned military hospital into a modern regional financial center for the Defense Finance and Accounting Service. This regional design team is one of the first in the Corps to bring together resources from three different districts to meet the customer's needs.

**Brinda Jackson, Little Rock District, received a Women of Color Tech-nology Award. (Photo courtesy of Little Rock District)**

Jackson is also project designer for the $13.7 million C-130 Squadron Operations Facilities which brings together squadron functions under one roof at Little Rock Air Force Base.

In her current job as acting chief of Little Rock District's Architecture and Support Section, Jackson supervises personnel responsible for architectural design, specifications development, and master planning for civil and military design and construction programs.

# *Runaway buoy bobs to Ireland*

**By Dr. Tom Fredette**
**New England District**

You've heard of taking a slow boat to China. How about a long float to Ireland?

Students of biogeography, the study of the intricate and sometimes surprising distribution of animals and plants across the world, have long understood the importance of ocean currents for transporting species from one land mass to another. One of New England District's (NED) buoys recently demonstrated this phenomena when it was recovered off the coast of Ireland. The buoy is normally used to mark dredged material disposal sites in New England.

In January, in my job as manager of NED's DAMOS (Disposal Area Monitoring System) Program, I received word from Tom Verna at HQUSACE that a buoy with my phone number had been reported in Ireland. I followed up this lead and traced a series of e-mail messages and phone calls back to Jim McCord III, a realtor in St. Joseph, Mo.

McCord explained that he had been on vacation in Ireland in the fall of 1997 in County Donegal when he heard in the local news that a buoy had been recovered off the coast with a U.S. Army Corps of Engineers designation painted on it. McCord's curiosity took him down to Hugh Boyles' Service Center in Carrigart, Letterkenny, where he met Boyles, saw the buoy, and took a few photographs.

Back in the U.S., McCord contacted his friend, Fred Slater, a reporter for the local St. Joseph *News Press,* who started the first inquiries at the Corps.

When I received the pictures from McCord, it was obvious that the buoy, though somewhat barnacle encrusted, was in excellent condition and had no signs of physical damage despite the trans-Atlantic crossing. New England's disposal site buoys are steel-hulled disks six feet in diameter, with a six-foot tower carrying a flashing light and radar reflectors. They weigh about 1,500 pounds.


**This 1,500-pound bouy was recovered off the coast of Ireland. (Photo courtesy New England District)**

The pictures also showed that the buoy had a designation of Hull Number 2. From NED records we determined that this buoy had been deployed at the Portland, Maine, disposal site, but was lost during a large coastal storm around January 5, 1996. Boyles said he retrieved the buoy in August 1997 after it was reported being a navigational hazard off of Horn Head. Thus, the buoy had traveled more than 2,440 miles in about 500 days, a rate of about five miles per day.

After its visit to the land of the green, the buoy is now on its way back home by cargo ship. Shipping costs are only about 25 percent of the cost of a new buoy, so the return trip is warranted. The buoy will be refurbished by NED's disposal site monitoring contractor, Science Applications International Corporation, where it will be scraped, painted, and re-outfitted. However, this time we'll make sure the phone number includes an international access code for the next time the buoy gets a yearning to see Europe.

# West Point gets $22 million in housing

## *Military Academy gets first new staff, tenant housing in 25 years*

**By Vince Elias**
**New York District**

After more than 24 months of construction, New York District recently completed the final group of the 118-unit, design build housing project, "Stony Lonesome II" at the U.S. Military Academy at West Point. The housing is for the academy's military faculty, staff, and some tenant agencies.

The U.S. Army Corps of Engineers awarded the $22 million contract for the project in July 1995 to Sea Crest Construction of Freeport, N.Y.

"A formal partnering relationship between the government and the contractor resulted in the success of the project," said Paul Franco, project engineer.

Construction began on Stony II in the summer of 1996, when blasting first began. It is West Point's first major housing construction program since the completion of the 200-unit Stony I in 1972. More than 200 post-war housing units at Steward Army Sub-post were also demolished under this contract.

The final 30 units are scheduled for completion before winter. All 118 units are of brick veneer with vinyl siding. Typical units are two-story quarters grouped as four-, five-, or six-unit buildings. Five percent of each unit type is a one-story handicapped accessible ranch style.

Each two story unit's first floor is equipped with a kitchen (that includes a dishwasher, garbage disposal, range, and refrigerator) with adjoining family room, half-bath, living room/dining area with hardwood floors, pantry with freezer space, laundry room, broom closet, and coat closet.

A separate exterior entrance is provided to each unit's mechanical equipment room. The crawl space is accessed through the mechanical room floor. "This is a significant design feature, allowing maintenance access without the occupant present," said Franco.

**The new housing area at the U.S. Military Academy, West Point, N.Y., nears completion. (Photo courtesy of New York District)**

The second floor contains either three or four bedrooms, two full baths, interior bulk storage areas, linen closets, and attic access.

The units feature central air conditioning and high efficiency air heating furnaces.

Arranged in three clusters, each quad comes with a natural wooded central court area. A tot playground is also in the central court area. Each unit is equipped with a one car garage, one driveway parking space, and an additional 59 parking spaces are located along the roads.

According to Franco, after the housing units are completed, safety fencing will be erected. There are also plans under this contract to build a recreational field on a five-acre area.

**The mess hall facility at the U.S. Military Academy at West Point underwent a total interior renovation, an effort taking three years and $30 million. (Photo courtesy of New York District)**

# *Corps dishes out mess hall renovation at West Point*

**By Vince Elias**
**New York District**

The 200,000-square-foot Cadet Mess Hall at the U.S. Military Academy at West Point is once again in full operation after three years of total interior renovations and revitalizations that have significantly upgraded food preparation.

During the renovation and revitalization, the 300-person Cadet Mess staff continued to dish out meals to 4,100 hungry cadets while New York District oversaw extensive improvements to a facility that was last renovated when Harry Truman was commander-in-chief.

The scope of the project consisted of $30 million in upgrades that included asbestos and lead abatement, total electrical and mechanical upgrades, installing furnishings, bakery equipment, sprinkler systems, concrete masonry, new elevators, refurbishing the ceilings and floors, and applying miles of new coats of fresh paint and tile.

Everything remained opened during construction. "The entire kitchen was replaced," said Larry Kirwan, project manager and mechanical engineer. "The traffic and routing of food was improved to ensure safe and hazard-free food production. This was accomplished while continuing to feed 4,000 cadets three meals a day."

The new facility boasts all new glazed tile on the wall and a lot of stainless steel, new deep-fat fryers, revolving ovens, and 400 gallon kettles necessary to prepare food in mammoth volumes. "When spaghetti is served to the cadets, for example, a ton of sauce is prepared and served," Kirwan said. "It's not like a restaurant; it's a substantial amount."

The project began in June 1995. On Aug. 27, a ribbon-cutting ceremony reopened the facility, located in the academy's Washington Hall. At the partnering celebration in August among the contractor, the Corps and the user, Col. William H. Pearce, District Engineer, and Col. Arnold Smith, West Point Garrison Commander, both highlighted the difficult task of renovating the Cadet Mess without missing a meal -- a feat attributed to the cooperation and coordination between the contractor, the customer, and New York District.

When the project first got underway, there were concerns about potential inconveniences to staff and cadets, and safety questions about on-going construction. A partnering session provided a solution to those issues.

"Partnering contributed to the success of this project, and it worked extremely well," said Kirwan. "We got through it, persevered through all the construction issues, the outages, feeding hundreds of cadets, and keeping all evolutions going without any major problems because everybody was working together."